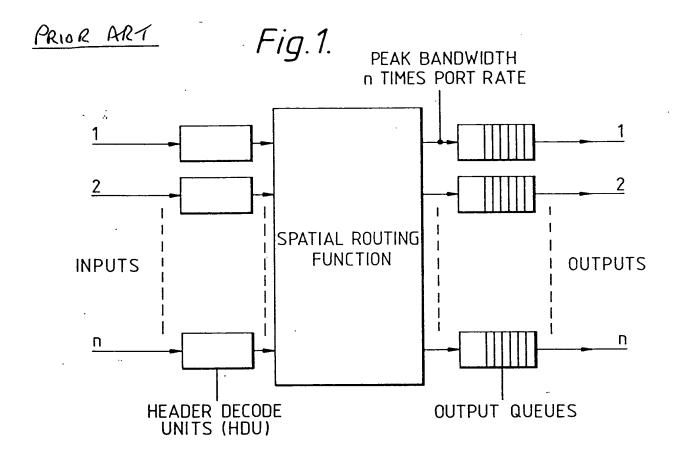
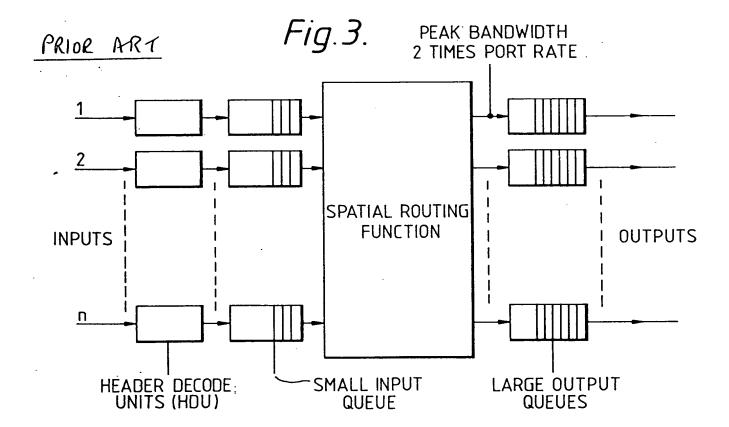
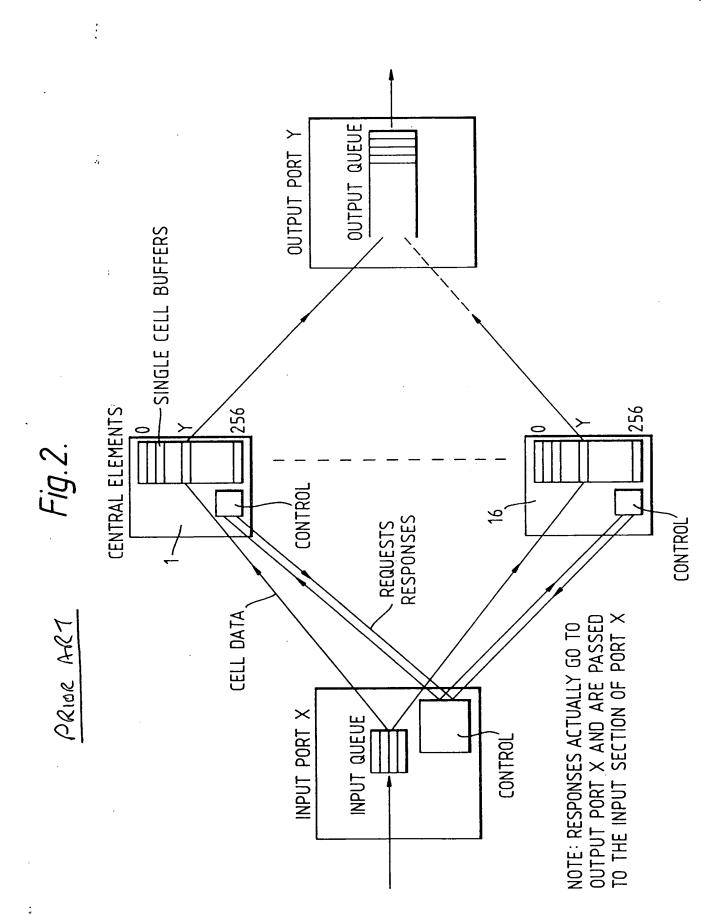
HOOKO









PRIOR ART

Fig.4.

PORT X

CENTRAL SWITCH

PORT Y

IS THE BUFFER FOR PORT Y EMPTY? BUFFER OCCUPIED NO NEXT CENTRAL SWITCH IS THE BUFFER FOR PORT Y EMPTY? **BUFFER EMPTY** YES **CELL CONTENTS**) FIXED DELAY) CELL CONTENTS

PRIOR ART

Fig.5.

PORT X

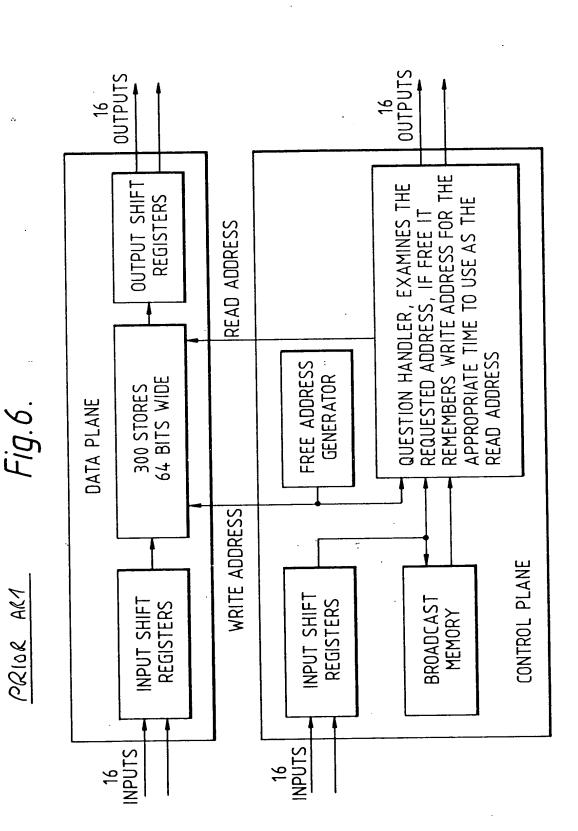
CENTRAL SWITCH

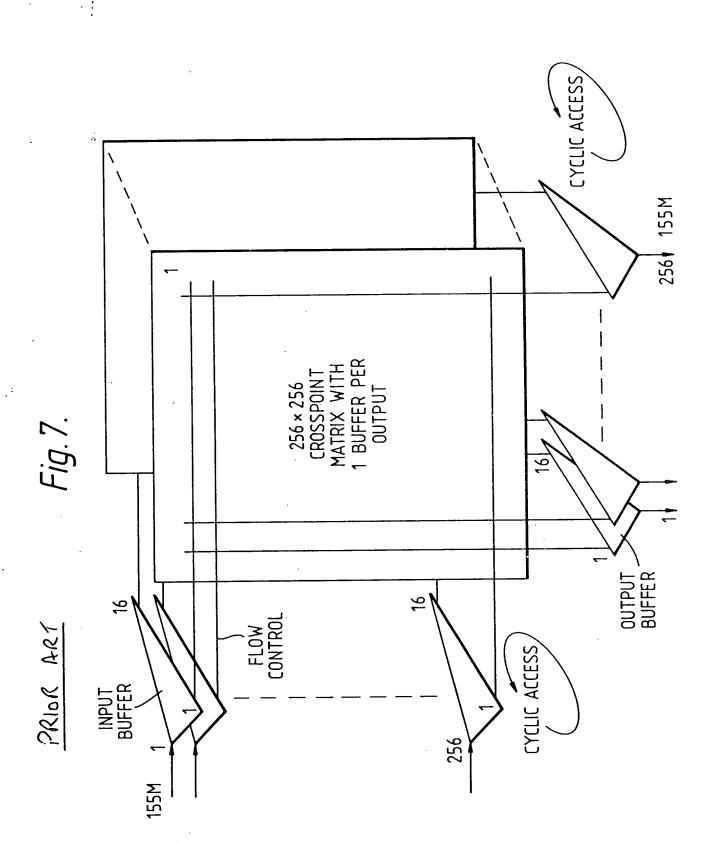
PORT Y

HAVE YOU GOT SPACE FOR MULTI CAST CELL? SPACE IN USE ALREADY NO NEXT CENTRAL SWITCH HAVE YOU GOT SPACE FOR MULTI CAST CELL? SPACE AVAILABLE YES **CELL CONTENTS** FIXED DELAYS CELL CONTENTS PORT Y PORT Z CELL CONTENTS DELAY ADDED IF NEEDED

BEFORE ENTERING THE **OUTPUT QUEUE**

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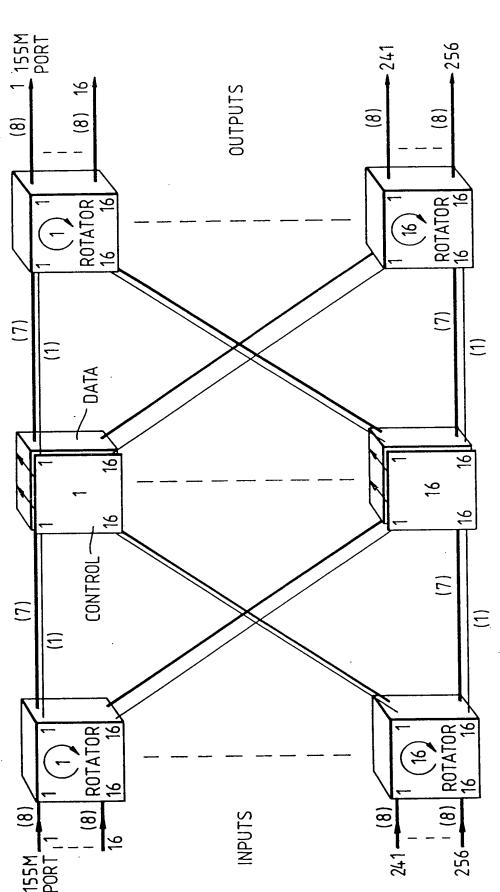




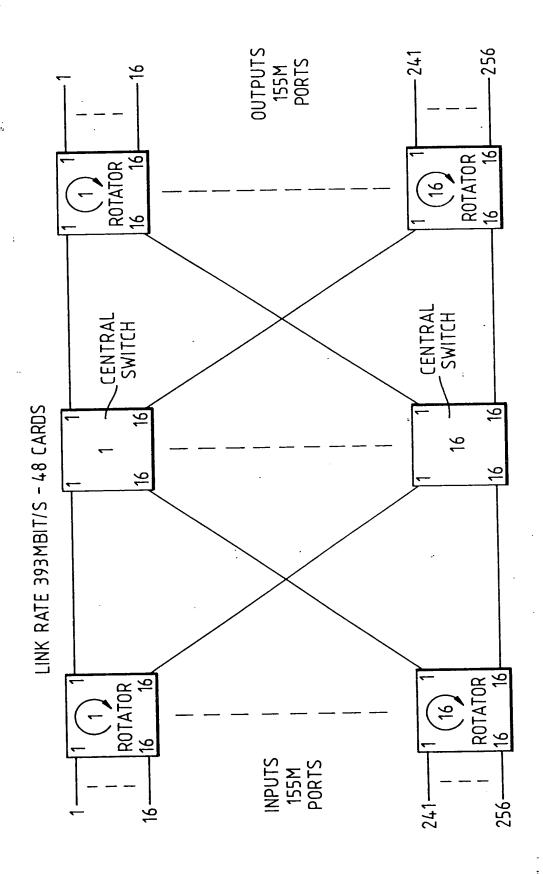


PRIOR ART FIG. 8.

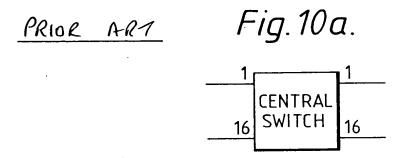
NOTE : ANY NUMBER OF INPUT/OUTPUT "PORTS" CAN BE CONCATENATED WITH GUARANTEED CELL SEQUENCE INTEGRITY TO ALLOW EVOLUTION TO 600M, 2.4G, 9.6G ETC.

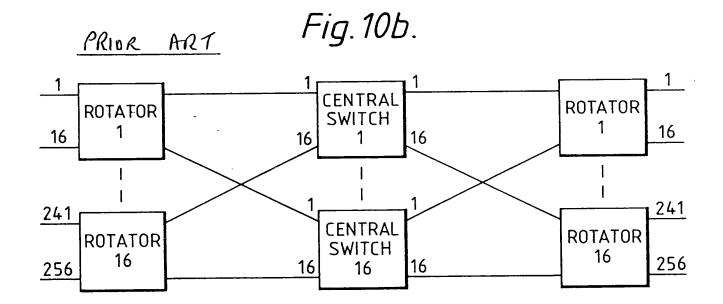


PRIOR ART FIG. 9.



NOTE: OPTICAL ROTATORS HALVE THE NUMBER OF ROTATOR CARDS BY COMBINING Rx AND Tx FUNCTIONS.





3856 256 3841 4081 241 16 ROTATOR 16-1 (A) ., ROTATOR 1-16 (A) ROTATOR 1-1 (A) ROTATOR 16 -1 (B) ROTATOR ROTATOR 1-16 (B) 1-1 (B) Fig. 10c. CENTRAL SWITCH 16-1 CENTRAL SWITCH CENTRAL SWITCH 1-16 1-1 ROTATOR ROTATOR 1-16 (B) ROTATOR 16-1 (B) 1-1 (B) PRIOR ART ROTATOR 1-16 (A) ROTATOR ROTATOR 16 - 1 (A) 1-1 (A) 3856 3841 256 241 16

9607

ROTATOR 16-16 (A)

ROTATOR 16-16 (B)

CENTRAL SWITCH 16 – 16

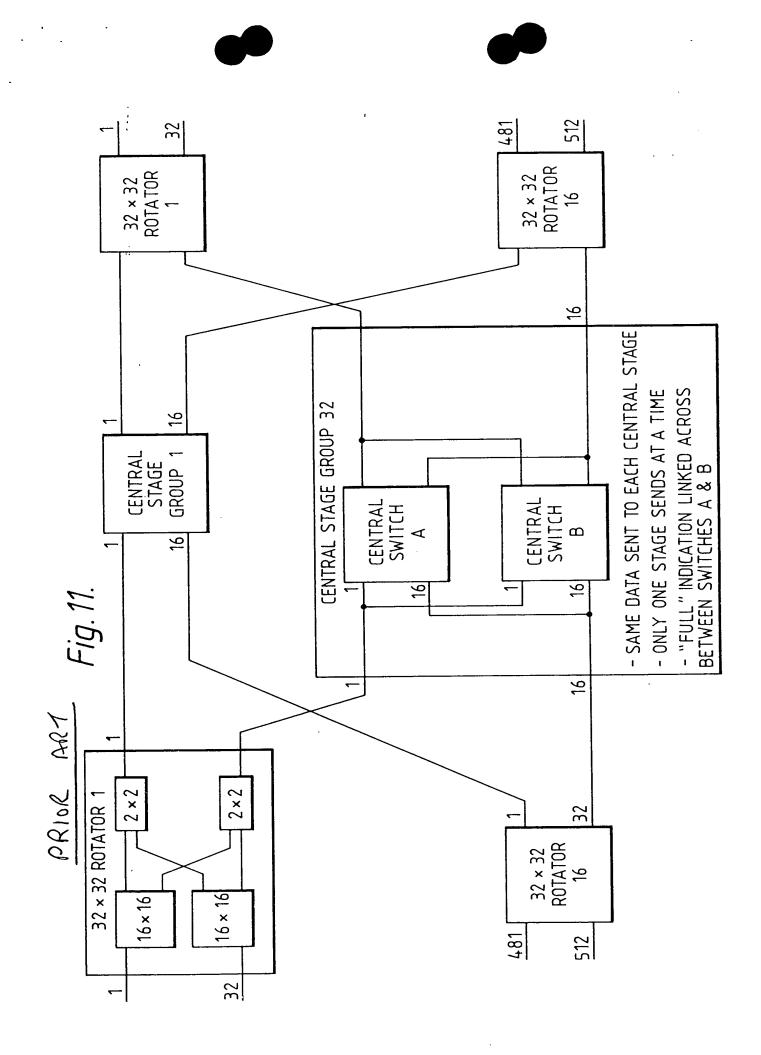
ROTATOR

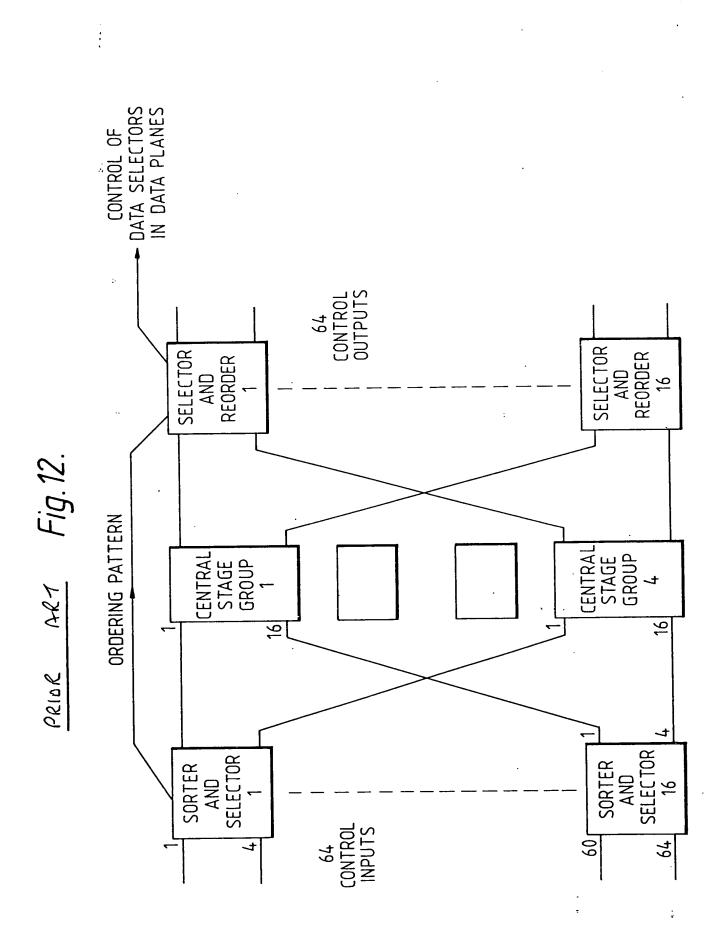
16-16(B)

ROTATOR 16-16 (A)

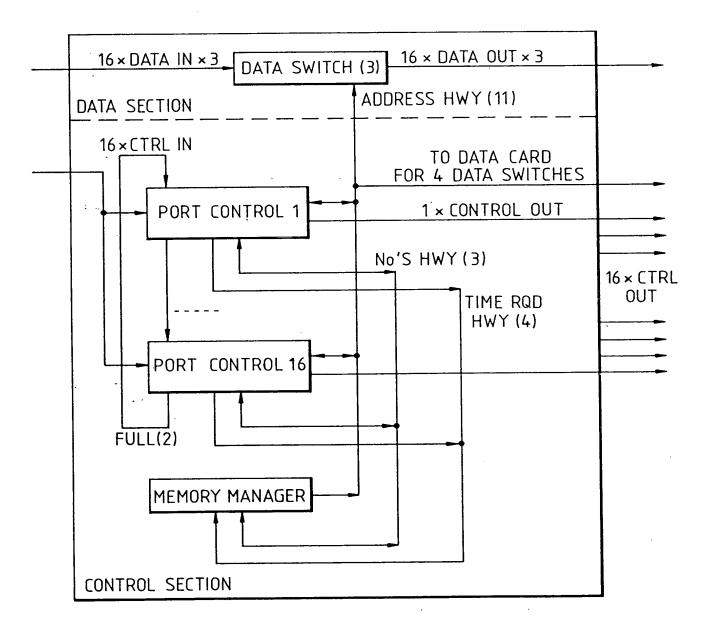
9607

4081

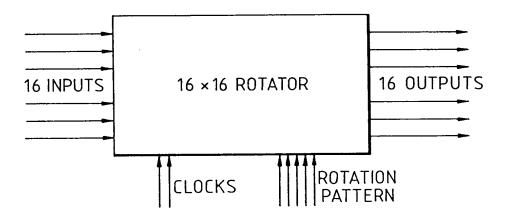




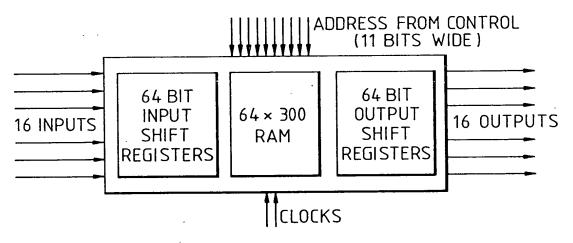
PRIDE ART Fig. 13.



PRIOR ART Fig. 14.



PRIOR ART Fig. 15.



PRIOR AND FIG. 16.

No'S (3)

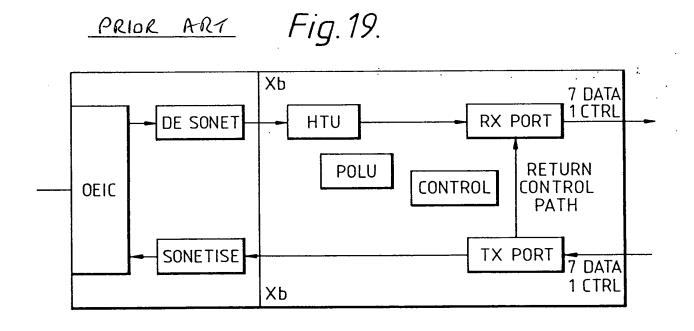
RETURN IN TIME FREE POOL

ADDRESS MANAGER

No'S (3)

FREE ADDRESS (9)

Fig. 17. PRIOR ART No'S (3) OUTPUT MANAGER No'S (3) 16 × 48 BIT (FUNCTIONS d,e) SHIFT 16 CONTROL TIME REQUIRED (4) **REGISTERS STREAMS** 1 CONTROL STREAM 18 TIMESLOT MANAGERS (a,b,c,f,g,h,i)**BROADCAST** FULL (2) FULL (2) **MEMORY** 18×1000 CLOCKS ADDRESS (9)



PRIDE ART FIG. 22A.

SPACE FOR A SINGLE CELL———

PORT 0 PORT 1 PORT 2 PORT 3 PORT 4 PORT 5 ETC.

SINGLE CELL STORAGE, FOR POINT TO POINT CELLS

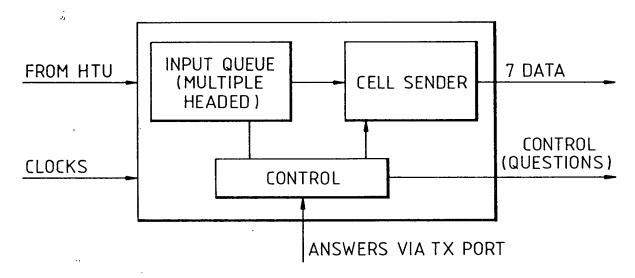
PRIOR ART

Fig. 22B.

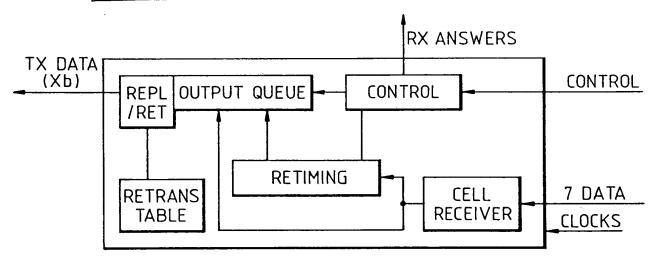
| TOP RANK | MID RANK(S) | PORT 0 PORT 1 PORT 2 PORT 3 PORT 4 PORT 5 MAIN RANK |
|------------------------------|-------------|---|
| | · | PORT 5 |
| | | PORT 4 |
| | | PORT 3 |
| | | PORT 2 |
| | | PORT 1 |
| | | PORT 0 |
| FORWARD TRANSFER SPACE | | AS ABOVE |

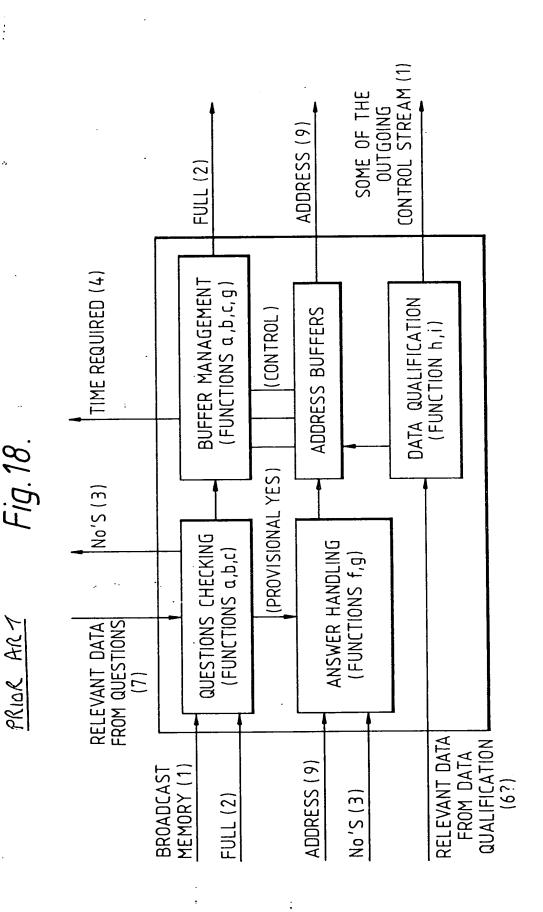
ADDITIONAL STORAGE FOR MULTIPOINT CELLS

PRIDE ART Fig. 20.



PRIOR ART Fig. 21.





PRIOR ART



Fig. 1/. 23

ATM OPERATION

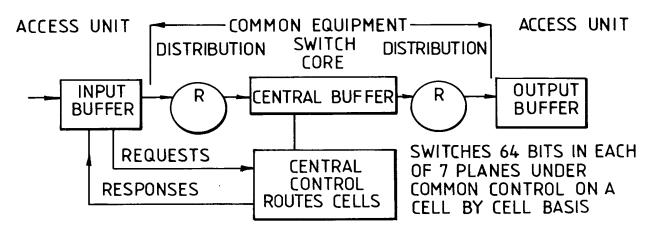


Fig.2. 24

STM OPERATION

